

Technical Branch
Technical Group
Electrical Series

ELECTRONICS TECHNICIAN

11/03 (AIS)

General Purpose

Under general supervision, service a variety of assigned electronic or electromechanical equipment and systems.

Typical Duties

Install and troubleshoot and maintain control apparatus, auxiliary devices and instruments, including but not limited to those used for toll equipment, fare boxes, flip dot and LED display signs, two way radios, and traffic signals. Involves: Inspect, adjust, repair or replace components such as propeller meters, altitude valves, cathodic protectors, electric valves, switchgears, motor starters, air compressors, booster pumps, ultrasonic measurement equipment, magnetic flow meters and electric motors. Set up, connect, repair or replace local and wide area communication networks, close circuit televisions, and clock, fiber optic and infrared detection systems. Assist in overhauling complex, specialized systems such as utility treatment plant instrumentation, and process monitoring and control. Replace damaged traffic controllers, signal heads, standards, mast arms and wiring, as assigned. Lay and splice aerial and underground multi-conductor interconnect cables, as assigned. Operate testing equipment and verify repairs. Inspect work completed by outside entities to insure compliance with project plans and specifications. Perform preventative maintenance. Comply with safety regulations.

Perform related incidental duties contributing to realization of unit or team objectives as required. Involves: Substitute for supervisor or coworkers during temporary absences, as qualified, by performing specific duties sufficient to maintain continuity of ordinary operations, if delegated. Provide designated support for projects or activities of other employees as instructed. Explain and demonstrate work performed to assist supervisor in training less knowledgeable employees. Maintain tools, equipment, materials and supplies, and keep work area orderly, safe and clean.

Knowledge, Abilities and Skills

- Considerable knowledge of electronic or electrical circuits, and related installation, maintenance and repair procedures.
- Considerable knowledge of digital data communications, close circuits television systems, fiber optic systems, video and wireless detection systems, microwave communication systems and Local Area Networks.
- Considerable knowledge of modems, multiplexers, demultiplexers, transceivers, and data and video switches.
- Ability to install, troubleshoot, repair and operate electronic equipment and related circuitry, computers and testing equipment.
- Ability to communicate clearly and concisely, orally and in writing.
- Ability to follow oral and written instructions, read and interpret plans, blueprints, schematics and other related documents.
- Ability to prepare and maintain accurate records and reports.
- Ability to establish and maintain effective working relationships with vendors, contractors, city officials, public safety personnel, city employees, regulatory agencies, inspectors, and the public.
- Skill in safe operation and care of motor vehicle, tools, equipment, personal computer or network workstation, and generic business productivity software.

Other Job Characteristics

- Frequent driving through City traffic.
- Frequent exposure to adverse weather conditions, potential exposure to physical harm, uneven, unstable or slippery terrain, confined spaces, climbing ladders and moving traffic.
- Frequent work at heights of up to 20 feet. Some positions may occasionally require work at heights of up to 75 feet.
- Frequent lifting and carrying of moderate weight objects (up to 50 pounds).

Minimum Qualifications

Education and Experience: Equivalent to a high school diploma or General Education Development (GED), supplemented by a recognized one (1) year electronic's technician training program, plus one (1) year of practical electronics work experience.

Licenses and Certificates:

- Certificate of completion of electronics technician training.
- Some positions may require a valid Texas Commercial Driver's License or equivalent from another state.

Special Requirements:

- Subject to on-call during non-working hours and mandatory recall.

Human Resources Director

Department Head

Department Head

Department Head

Department Head